ABSTRACT OF THE DISCLOSURE

A belt transmission apparatus is capable of changing a set tension of an automatic belt tensioner 30 between a first optimal value suitable for engine starting and a second optimal value suitable for driving an accessory after an engine 1 has been started. The belt transmission apparatus includes a rotating electric machine pulley 8 of a rotating electric machine for transmitting starting power to the engine 1; an engine pulley 2 for transmitting the starting power to the engine 1 and also transmitting a rotation power of the engine 1 to accessories; auxiliary pulleys 3, 4, 5 being driven to rotate by the power from the engine pulley 2 thereby to drive the accessories, respectively; a belt 10 wrapped around the rotating electric machine pulley 8, the engine pulley 2 and the auxiliary pulleys 3, 4, 5 in succession; and a belt tension adjuster 9, 30 for urging the belt 10 so as to set a tension of the belt 10 in a plurality of stages. The belt tension adjuster 9, 30 acts to adjust the tension of the belt 10 in such a manner that the belt tension is set to be greater when the engine 1 is started by the rotating electric machine than when the accessories are driven to operate after the engine 1 has been started.